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NEWSLETTER

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GENERAL NEWS

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SPECIAL FEATURE

Classes, Priorities, Limits and Defaults

************ 7094 Special Meeting ************

SUGGESTIONS

The number of suggestions submitted to us by our users has dropped considerably since last month's Newsletter - 31 this month as compared to 60 last month. This decrease could owe to the fact that summer school is over but the fall term has not yet started. We certainly expect the number of suggestions to pick up again.

The suggestions are broken down into the following general categories: technical issues (8), pricing and operational policies (4), physical plant ideas (3), advising services (1), publications policy (1), system test time (2), general job handling (8), and keypunch service and maintenance (3).

About keypunches: Six keypunches at EUT have been designated drum control keypunches, i.e., the drum may be used on these keypunches. There are also two EXPRESS keypunches at EUT for punching six cards or less.

About trays in the I/O room for early-rising users to leave their decks: There are now two trays provided, one for each system. See also Products and Services News regarding a new System Startup schedule.

About collecting output from printers more regularly: Operations staff have been directed to have all output on the shelves within 10 minutes of printing.

We also received a suggestion form commending the Operations staff for the excellent service they provide. We work for your approval and appreciate your expression of it.

PERSONNEL CHANGES IN UTCC

During the past few months many changes in personnel have occurred at UTCC.

Operations has been augmented by the staffs of the High Speed Undergraduate Terminals, Miss Lillian Hanna, Miss Edith Kovacs, Miss Janet Likeness, Mrs. Robyn Turnbull, and Mrs. Cindy Weir. Operations has also been increased by Raymond Anka, Bob Evans, Bill Gillart, Mrs Janet Norman, John Lees.

Mrs. Debbie Cook is the new secretary in the Operations Office.

Administration is now an even brighter place to obtain assistance with the addition of Miss Jennifer Schick and Mrs. Brenda Haines. Pat O'Brien has replaced the retired Norman Stoate as the main cog in our mailroom.

Delia Quintieri is now the USG secretary and other new faces for the users to meet are Mark Tapia and Stan Yagi.

Development (formerly Programming) has two new members, Russell Mayhew and Gerrard Milandre.

No longer with UTCC are Phil Marsh, Gloria Rauch, Bill Wilson, Franco Bove, Doug Burness and Roby Tiongson.

Another recent departure was our Planning Manager Dick Swenson who gave up the working world in favor of academic pursuits in the Department of Computer Science.

Congratulations to Janet Marsh and Josie Troccoli in their recent marriages.

RECYCLING OF COMPUTER OUTPUT PAPER

Ecology-minded users and UTCC staff members have continued to wish the Centre to find a way to recycle used computer cards and listings. All tab cards which can be collected are reboxed and recycled, and have been for many years. We are improving the efficiency of our recovery methods in this area.

Used paper has been a problem for reasons of space and fire security. However, UTCC has now instituted a scrap paper collection scheme. Look for collection boxes at key locations. The Centre intends to establish a procedure for storing and shipping the quantities collected to a salvage company.

Furthermore, there is hope that, in the early future, the entire problem of paper recycling within the University can be solved to the satisfaction of all. The University last spring, under the auspices of the Assistant Superintendent of General Services, Mr. L. H. Hubbard, conducted an experiment with a view to establishing the logistics and cost of the complete recycling of all scrap paper within the University. We have been informed by Mr. Hubbard that his report will be available by November 1, 1971 and we will print as much of his report as is appropriate in our newsletter #82.

BOOK REVIEW

The IBM PL/I language is becoming more widely publicized. It now has been introduced on the UTCC High Speed Job Stream service. As a result, more experienced FORTRAN and COBOL programmers are asking for a good reference text for learning about PL/I. One such text has recently come to hand. It is "PL/I for Scientific Programmers" by C. T. Fike, Prentice-Hall, Inc. Englewood Cliffs, N.J., 1970: price $7.50.

This book has two features which help make it a valuable text for the experienced FORTRAN programmer. Firstly, it assumes that the reader has a basic knowledge of programming, and so concentrates on the description of PL/I itself. Secondly, it reviews the major differences between FORTRAN and PL/I at the end of each chapter. A further point in its favour is that it uses the IBM PL/I F compiler when discussing particular implementations of a feature. (Readers who will be exposed to other PL/I compilers such as PL/C or PLUTO should expect to use additional guidance material, in conjunction with this book, to determine differences in implementation from PL/I F).

Good coverage is given to those areas most likely to cause a FORTRAN programmer difficulties. For instance Chapter 2, on arithmetic operations, contains an exhaustive discussion of precision considerations, especially pitfalls which can be encountered with fixed point calculations. I/O is another area in which PL/I concepts differ from those to FORTRAN programmers. Chapter 6 covers I/O emphasizing the stream concept and concentrating on the SYSIN and SYSPRINT files. There is a section on other files but record I/O is not covered. Program interrupts, character and bit strings, and the powerful debugging features of PL/I are treated at some length. A chapter on FORMAC is included.

Throughout the book there are scientific examples, in many cases of a non-trivial nature, emphasizing the power of PL/I. Sample outputs are not given thereby missing an often valuable way of illustrating a point. The examples unfortunately are typeset rather than reproduced from actual outputs. However, this book is recommended as meeting its objectives of covering PL/I for an experienced programmer.

NEW ACQUISITIONS IN DEPARTMENT OF COMPUTER SCIENCE LIBRARY

ACM Symposium on Theory of Computing.
Conference record. 3d (1971)

ACM Symposium On Operating Systems Principles, 2d, Princeton, 1969.
Proceedings.

Burks, A.W., ed.
Essays on cellular automata.
Urbana, Univ. of Illinois Press, 1970

Canadian Information Processing Society.
Salary and manpower survey.

Clinic on Library Applications of Data Processing, Univ. of Illinois.
Proceedings, 1970.

Cohen, Leo J.
Operating system analysis and design. 1970.

Datamation Industry Directory: a catalog of EDP products and services.
Barrington, Ill., Technical Publishing Co., 1971

Digital Equipment Corp.
PDP 10 timesharing handbook.

Drumm, Eric H.
Extensions to Blum's size results in subrecursive formalisms.
Toronto, University. Dept. of Computer Science, 1970.
(M.Sc. thesis)

Goodlad, J. I., O'Toole, J. F. Jr. and Tyler, L.L.
Computers and information systems in education. 1966.

Greunberger, F. J.
Computing: an introduction. 1969

Hayes, J.G., ed.
Numerical approximation to functions and data. 1970.

International Conference on Computational Linguistics, Sanga-Saby, Sweden, 1969
Preprints.

Lapidus, L.
Numerical solution of ordinary differential equations.

Meetham, R.
  Information retrieval: the essential technology.

Mesarovic, M.D., Macko, D., and Takahara, Y.
  Theory of hierarchical, multilevel systems. 1970.

Olesky, D.D.
  Inclusion regions for partitioned matrices.
Toronto, University. Dept. of Computer Science, 1971
(PH.D. thesis)

Pennington, Ralph H.
Introductory computer methods and numerical analysis. 2d ed.
New York, Macmillan, 1970

Prince, M. David.
  Interactive graphics for computer-aided design. 1971.

Public Administration Service.
  Public Automated Systems Service.
  The computer in the public service: an annotated
  bibliography 1966-1969.

Schoenberg, I.J., ed.
Approximations with special emphasis on spline
  functions. 1969

Symposium on Interval Analysis, Culham, Eng., 1968
  Topics in interval analysis, ed., by E. Hansen. 1969.

Walsh, Dorothy.
  A guide for software documentation.
New York, Inter-CT Corp., 1969.

Workshop on Microprogramming, 3d, Buffalo, 1970
  Preprints.

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ATTENTION COBOL USERS

The University of Toronto Computer Centre (UTCC) is considering acquiring WATBOL, a high speed in-core COBOL compiler developed at the University of Waterloo. At the University of Waterloo it is available on the High Speed Student Terminal, along with the other language processors. For more information, please telephone Mr. R. Williams at 928-2694. Acquisition is dependent upon user response.

CHANGES TO IBM COMPILERS

FORTRAN IV (Based on an article appearing in Waterloo Newsletter, June 1971).

At some as yet unspecified date in the future, IBM intends to make the FORTRAN G and H compiler adhere more closely to the specifications for the FORTRAN IV compilers.

The first change involves floating point constants. At present if more than 7 digits are specified in a constant it will be assumed to be double precision. In the future a constant will only be treated as double precision if it is given with a "D" exponent. Otherwise it will be truncated to a single precision constant of 7 digits.

e.g. 3.14159265 will be truncated to 3.141592

To get double precision the constant must be written as

```
3.14159265DO
```

The second change involves format statements. Presently in some cases it is not necessary to separate format specifications by commas. In future all format specifications must be separated by either a comma or a slash, whichever is appropriate.

e.g. `FORMAT(16HO THE ANSWER IS I5)` currently is acceptable to both FORTRAN IV and WATFIV.

In the future this statement must be written as:

```
FORMAT(16HO THE ANSWER IS ,I5)
```

Both of these rules are stated in the most recent version of the IBM FORTRAN IV language manual (C28-6515-8).

Implementation of these features will not occur until some future release of the IBM processors and users will be reminded when this happens. However, users are advised to conform to these rules in writing their programs to avoid problems in the future.

COBOL

IBM has announced its intention of discontinuing its support of COBOL F, which is currently in use at UTCC, effective October 31st 1971. This will be replaced by the COBOL U compiler which supports the USA Standard COBOL. UTCC will continue to support COBOL F in both its present Release 18.6 of Operating System/360 and its immediate successor. However, there is a Release 19.6 version of COBOL U available which may be accessed by using the procedure CBUCLG19.

A list of differences between COBOL F and COBOL U plus a list of new features in COBOL U is available from the U.S.G., S.F. Rm. 129/13. Users of COBOL are advised to switch to the new version of COBOL as soon as possible so that UTCC may obtain assistance from IBM in the event of difficulties being encountered.

SSB's ISSUED

On September 1st, 1971, the Computer Centre published an SSB #47:71 listing all System Status Bulletins in effect at that date. Users should make special note of this publication.

Since that date three more SSBs have been issued as follows:

48:71:1	Revised Schedule for System/360 No.2
49:71:1	OMR: Optical Mark Recognition Cards Supplement Keypunching -- (available ONLY for WATFIV ONLY at EUT).
50:71:1	Free Computer Courses

EARLIER S/360 STARTUP TIME

System #2 now opens for service at 8:00 A.M. Monday to Friday on September 7, 1971 instead of 9:00 A.M. This will allow users to submit jobs before classes begin.

HIGH SPEED JOB STREAM PL/I SERVICE

The High Speed Job Stream Service now offers users two PL/I processors, PLUTO developed by the Computer Systems Research Group, University of Toronto, and PL/C developed by Cornell University. The job card color coding is as follows:

PLUTO	$JOBP	PINK
PL/C	$JOBC	BROWN

The following interim documentation is available from the Users' Services Group, Room 128, Sandford Fleming Laboratories:

"PLUTO USER QUICK REFERENCE" by UTCC
"PLUTO: Language Restrictions and Incompatibilities" by CSRG.
"PL/C USER QUICK REFERENCE" by UTCC

Expanded manuals "HIGH SPEED JOB STREAM SERVICE PL/C USERS' GUIDE" and "Introduction to PL/I with PLUTO" are now in preparation.

TRANSPARENCY NOW AVAILABLE AT THE NEW PHYSICS AND ARTS AND SCIENCE REMOTE TERMINALS

This feature became available at the above terminals on Friday 3rd. Sept. 1971. The feature was ordered and installed in response to a user suggestion received in April (see NL 71). This feature permits users to submit object decks at these terminals which should increase terminal throughput and decrease user job cost.

These terminals use the Binary Synchronous Communication (BSC) technique for transmission between the remote terminal and central computer. Standard BSC does not allow transmission of all the 256 EBCDIC characters. Some are used as transmission control characters, hence it was not possible to transmit object decks. The addition of the transparency feature removes this restriction, however, and allows the transmission of all 256 EBCDIC characters.

As stated in NL 75, we are considering adding this feature to the Scarborough and Erindale Remote Terminals and are currently attempting to resolve the attendant financial and technical problems.

MATRIX SUBROUTINE PACKAGE FROM ARGONNE LAB

Users' Services Group has received and implemented an excellent matrix package, produced at the Argonne National Laboratory for the determination of eigensystems of general real, real symmetric and general complex matrices. These routines, published in the Numerische Mathematik, are FORTRAN translations of ALGOL-60 programs, designed by Dr. James H. Wilkinson of the National Physical Laboratory, England. Wilkinson is a top expert in the eigenvalue field. These routines are considerably more accurate and faster than other routines published in this field. Another advantage of the package is that some subroutines make it possible to calculate only a few of the eigenvalues and corresponding eigenvectors. Therefore the usage of these programs would mean a considerable saving in time and money for the user.

Users who encounter problems with this package, which up to now has not undergone extensive field testing, are requested to contact Mr. R. Lemmens of Users' Services Group, Room 130 Sandford Fleming Building, or call him at 928-8701.

Access to this package of load modules is provided by using the folling JCL with your program:

```
// jobcard
// EXEC FØRTGCLG (or FØRTHCLG)
//FØRT.SYSIN DD *
Fortran deck which calls the load modules.
/*
//LKED.SYSLIB DD DSN=SYS1.FØRTLIB,DISP=SHR
//             DD DSN=U69.ZG.ARGØN,DISP=SHR
/*
//GØ.SYSIN DD *
Data from cards
/*
//
```

If using the the loader the JCL will be:

```
// jobcard
// EXEC FØRTGLDG (or FØRTHLDG)
//FØRT.SYSIN DD *
Fortran deck which calls the load modules.
/*
//LKED.SYSLIB DD DSN=SYS1.FØRTLIB,DISP=SHR
//             DD DSN=U69.ZG.ARGØN,DISP=SHR
/*
//GØ.SYSIN DD *
Data from cards
/*
//
```

All the load modules have been created under FORTRAN H.

Writeups of the individual routines are available in Room 103 of the Sandford Fleming Building.

PRODUCTION STATISTICS

The level of activity on our System/360 computer systems in August withstood the usual vacation time dropoff. The 7094 and High Speed Job Stream services showed the effects of the summer doldrums in a more traditional way (Table 1).

The 1970/71 comparison (Table II) confirms the dramatic growth in service which has developed in all but the 7094 II job streams. In fact, a look backward at the July/Aug loads for the years 1969, 1970 and 1971 revealed a 52% growth from 1969 to 1970 and a further 54% growth from 1970 to 1971.

SYSTEM	JUNE	JULY	AUG	AUG/JUL CHANGE
S/360	18,431	16,601	16,200	- 2%
7094	1,032	717	689	- 4%
HSJS	24,595	27,877	18,782	- 33%
TOTAL	44,058	45,195	35,671	- 33%

TABLE I JOBS RUN - JUNE, JULY, AUGUST 1971

SYSTEM	AUG70	AUG71	70/71CHANGE
S/360	10,983	16,200	+ 48
7094	1,666	689	- 59
HSJS	10,465	18,782	+ 79
TOTAL	23,114	35,671	+ 54

TABLE II Comparison of Jobs Run Aug 70 vs Aug 71

CREDIT REQUEST ACTIVITY FOR AUGUST

The table below shows the reduction of claims for credit for all causes to be at the lowest point since this Newsletter feature was started earlier this year.

Of the claims made, over 40% were charged to two specific system shortcomings. One of these relates to how we charge for jobs requiring setup. The second set were caused by a fault of the High Speed Job Stream service which can force cancellation of regular General Purpose System/360 jobs. Both items are receiving system programming attention. The balance of the claims were for difficulties which might best be called happenstance. The efforts to provide quality service by the UTCC staff, needed to keep these snags to a minimum, continue.

	AUGUST			JULY
	S/360	7094	TOTAL	TOTAL
HUMAN	7	0	7	10
SOFTWARE	17	1	18	26
HARDWARE	3	0	3	19
TOTAL	27	1	28	55
% of Jobs Run			0.16%	0.31%

UTCC JOB FORM

The Special Job Request Form has been replaced by the UTCC Job Form. Jobs which required Special Job Request Forms now require UTCC Job Forms.

A UTCC Job Form contains job information that is also contained in a user job card, etc. The reason is that the latter is not available to an operator until a job starts execution.

The top left box on the UTCC Job Form contains job specifications required for job scheduling. The operator schedules jobs by system, by class, by priority, by date, and by time.

JOBNAME - Jobname on the UTCC job card, e.g. IC12345

SYSTEM - System 1 or 2 and please note if booked time.

CLASS - Class A, B, or C.

PRIORITY - Priority 8, 6, or 4

DATE - Date submitted, e.g. 150971 which is September 15, 1971.

TIME - Time submitted, e.g. 1734 which is 5:34 P.M.

The middle left box on the UTCC Job Form contains job estimates required for job scheduling. The operator may reschedule jobs if estimated time, core, printer, and punch are not available.

CPU - CPU time in minutes

I/O - I/O time in minutes

ELAPSED - Elapsed time in minutes assuming no other jobs are in the system.

CORE - Maximum core in Kbytes.

LINES - Printer lines in thousands.

CARDS - Punch cards in thousands.

The bottom left box on the UTCC Job Form contains user information required for emergencies and charging. CODE is only required if the job is a DEBE, dump and restore, or booked time.

PHONE - Phone number of the user e.g. 1234.

CODE - Authorization code of the user e.g. ABC1234

USER - Names, first and last, of the user.

The right box on the UTCC Job Form contains job information required for job processing. Tapes and disks are listed in the order required and tape internal labels are noted on the back of the UTCC Job Form if they differ from tape external labels.

LABEL - External label of tape or disk e.g. A1234 or ABC123 respectively.

WRITE - Y for yes and N for no tape write enable.

FORMS - Form number of paper or cards e.g. 1234

The box on the back of the UTCC Job Form is for comment from the user to the operator. Please be precise and concise.

To assure your job is processed correctly and efficiently, please complete this form where applicable. For further information about UTCC Job Forms, see an I/O Shift Supervisor in the I/O room (SF109).

UTCC JOB FORM

```
*********************************************************
*JOBNAME     SYSTEM     *TAPES(LABEL,WRITE)             *
*                       *DISKS(LABEL)                   *
*-----------------------*-------------------------------*
*CLASS       PRIORITY   *LABEL       WRITE              *
*                       *                               *
*-----------------------*-------------------------------*
*DATE        TIME       *LABEL       WRITE              *
*                       *                               *
*************************-------------------------------*
*CPU         I/O        *LABEL       WRITE              *
*                       *                               *
*-----------------------*-------------------------------*
*ELAPSED     CORE       *LABEL       WRITE              *
*                       *                               *
*-----------------------*-------------------------------*
*LINES       CARDS      *LABEL       WRITE              *
*                       *                               *
*************************-------------------------------*
*PHONE       CODE       *LABEL       WRITE              *
*                       *                               *
*-----------------------*-------------------------------*
*USER                   *FORMS                          *
*                       *                               *
*********************************************************
```

COMMENT

```
*********************************************************
*                                                       *
*-------------------------------------------------------*
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```

SPECIAL FEATURE

CLASSES, PRIORITIES, LIMITS AND DEFAULTS

Introduction

Effective October 1, 1971 the classes, priorities, limits and defaults for the general purpose job stream for both IBM 360-65's will be changed. The major changes will be a decrease in the number of classes and the introduction of a priority control card which the user will indicate the service level he desires.

It is important that users not only understand these changes but also the reasons for them. The following paragraphs attempt to explain them.

Classes and Priorities

Job classing is intended to separate jobs according to the demands they make on the resources of the system. The user should be able to control the order of processing within a class by specifying a certain priority of service for which he will pay a premium or be granted a discount against the rate for a standard service level.

Both these facilities have been provided by the use of an array of classes. So many classes were, however, difficult for us to explain and for users to learn. Now the class and priority functions have been separated by introducing a /* PRIORITY card on which the user may specify a priority within a class. The valid priorities are 8 (RUSH), 6 (ASAP) and 4 (IOI). This eliminates the old classes R, T, I, K, S, J and M.

With a further enlargement of core memory on the main batch machine, (System 2) and a balancing of loads between the two S/360 systems, it becomes unnecessary to maintain a class with a 110 Kbyte core limit. This eliminates the old class V. Also, with the reorganization of data sets on the disks, it is not necessary to maintain class B, which was limited to one disk mount.

The other old classes A, D and E will be renamed A, B and C respectively. The first class is for those jobs with no tape and/or disk mounts. The second class is for those jobs with two 7-track tapes and/or two 9-track tapes and/or two disk mounts maximum. The third class is for those jobs exceeding the limits for the first and second classes.

Limits

The resource limits demarking the new classes A and B will accomodate almost all jobs presently being processed. The general trend is a decrease in previous limits, placing a few more jobs into the new class C than were in the old classes E and M. However, since there is no decrease, and in fact an increase, in the available resources, throughput and turnaround of the jobs in the new class C should not be degraded.

Defaults

The defaults (resource limits for a given job, unless the user indicates other values) for the new classes A, B and C will accommodate the majority of the jobs presently being processed. The general trend is an increase in previous defaults so that more users may take advantage of them. The user should be aware that, in each class, execution, printing and punching will be scheduled by priority and time of submission only (assuming the resources are available).

Schedules

Job scheduling will, in this system, keep all class queues moving concurrently at rates varying in response to the actual resource requirements of jobs in the backlog. System resources will be assigned in such a way as to maintain a balance amongst the three class streams. Some class C jobs demanding excessive system resources may require rescheduling to a later hour to preclude wiping out turnaround in classes A and B.

Jobs will be scheduled by priority within a class, i.e. priority 8 jobs are processed before priority 6 jobs, etc. Within a class and priority, jobs are scheduled by date and time of submission only, i.e., a job read in at 9:00 a.m. is processed before a job read in at 9:10 a.m. on the same day. The only exceptions will be very large class C jobs. Jobs at Priority 6 will be at the standard prices (ASAP), priority 8 (RUSH) costs extra, and priority 4 (If Otherwise Idle) costs least.

Details

The new classes, priorities, limits and defaults are summarized in Appendix 1. The /* PRIORITY card is explained in Appendix 2. Appendix 3 shows the the conversion from old to new classes and priorities. The conversion from old to new limits and defaults is tabled in Appendix 4.

APPENDIX 1 - NEW CLASSES, PRIORITIES, LIMITS AND DEFAULTS

New Classes A, B and C

A - No tape and/or disk mounts

B - Two 7-track tape and/or two 9-track tape and/or two disk mounts maximum

C - Those jobs exceeding the limits for new classes A and B

New Priorities 8, 6 and 4

8 - RUSH service factor

6 - ASAP service factor

4 - IOI service factor

Limits for New Classes A and B

CPU + I/O - 10 minutes

CORE - 200 Kbytes

LINES - 20,000

CARDS PUNCHED - 2,000

Defaults for New Classes A, B and C

CLASS - A

PRIORITY - 6

CPU + I/O - 1 minute

CORE - 70 Kbytes

LINES - 2,000

CARDS PUNCHED - 200

APPENDIX 2 - /* PRIORITY CARD

The /*PRIORITY card assigns a priority to a job. The format is as follows:

```
cc                 cc
1                  16

/*PRIORITY          8 (or 6 or 4)
```

The /*PRIORITY card follows the user's job card, e.g.

```
//IC12345

// (user's job card)

/*PRIORITY 8
```

A priority other than 8, 6 or 4 on the /*PRIORITY card will be changed to 8, 6 or 4 by the operating system at read in time.

If desired the priority may be changed after a job has been read in. Please see the I/O Shift Supervisor in the I/O room (SF109).

APPENDIX 3 - CONVERSION FROM OLD TO NEW CLASSES AND PRIORITIES

OLD CLASS	NEW CLASS	NEW PRIORITY	COMMENTS
R or T	A	8	No 110 Kbyte core limit
A or V	A	6	No 110 Kbyte core limit
I or K	A	4	No 110 Kbyte core limit
S	B	8	No change
B or D	B	6	Two disk mounts limit
J	B	4	No change
-	C	8	RUSH service factor available
E	C	6	No change
M	C	4	No change

N.B. Some jobs in old classes R, T, A, V, I, K, S, B, D and J are in new class C - see appendix 4.

APPENDIX 4 - CONVERSION FROM OLD TO NEW LIMITS AND DEFAULTS

Limits for new classes A and B

ITEM	OLD LIMIT	NEW LIMIT	COMMENTS
CPU + I/O	30 minutes	10 minutes	RUSH service factor limit increased from 5 to 10 minutes
CORE	200 Kbytes	200 Kbytes	No 110 Kbyte core limit
LINES	30,000	20,000	RUSH service factor limit increased from 5,000 to 20,000
CARDS PUNCHED	10,000	2,000	RUSH service factor limit is now 2,000

N.B. Those jobs exceeding the limits are in the new class C.

Defaults for new classes A, B and C

ITEM	OLD DEFAULT	NEW DEFAULT	COMMENTS
CLASS	A	A	No change
PRIORITY	ASAP Service factor	6	No change
CPU + I/O	.1 minute	1 minute	Increased
CORE	70 Kbytes	70 Kbytes	No change
LINES	1,000	2,000	Increased
CARDS PUNCHED	1,000	200	Decreased

UTCC NL #80

SPECIAL MEETING FOR 7094II FANS

TIME: 3:00 - 5:00 p.m.

DATE: October 6, 1971

PLACE: Room 107, Galbraith Building

PURPOSE: Discussion of the Level of Support for the 7094II Operations for the Next Twelve Months.

The Computer Centre has plans for continuing to enhance the service of the IBM 7094II computer. These plans would extend the increased support provided during the past year, exemplified by the relocation of the input/output machine, the assignment of dedicated technical management, the establishment of an XPRESS service (and price cuts too!)

Despite the improvements of recent months, the volume of traffic on the 7094 is well below its own capacity. Our next move would support a much higher traffic volume with improved turnaround. But we need to know your requirements for this service.

Come and advise us of your needs and suggestions for the future of the 7094.

UNIVERSITY OF TORONTO
COMPUTER CENTRE
TORONTO, ONTARIO
CANADA